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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

WATER LICENCE
APPLICATION FORM

Application for: (check one)

☐ **New** ☒ **Renewal** ☐ **Amendment** ☐ **Assignment** ☐ **Cancellation**

LICENCE NO:
(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Hamlet of Kugluktuk
Kugluktuk, NU X0E 0E0

c/o Sudhir Jha, Project Officer
Community and Government Services
2nd Floor, Enokhok Building
PO Bag 200, Cambridge Bay, NU X0B 0C0

Phone: (867) 983-4008
Fax: (867) 983-4123
e-mail: sjha@gov.nu.ca

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Government of Nunavut
c/o Sudhir Jha, Project Officer
Community and Government Services
2nd Floor, Enokhok Building
PO Bag 200, Cambridge Bay, NU X0B 0C0

Phone: (867) 983-4008
Fax: (867) 983-4123
e-mail: sjha@gov.nu.ca

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

Kugluktuk is located immediately west of the mouth of the Coppermine River on Coronation Gulf at 67°50'N, 115°15'W, 595 air km north of Yellowknife. The Hamlet extends inland to cover a rocky knoll. The town site is underlain by Precambrian sedimentary and volcanic rock. Dolomite and shale, interspersed with volcanic rock, form steep outcrops in the vicinity of the settlement.

Latitude: (67°49'32" N) Longitude: (115°5'42" W)
NTS Map Sheet No. 086O14 Scale: 1:50,000

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

Upgrade the existing municipal potable water supply for the Hamlet of Kugluktuk, Nunavut.

The current Kugluktuk water supply system consists of a dual intake located in the Coppermine River, approximately 1.5 to 2 m above the river bed and approximately 35 m from shore. The pump flow rate is usually around 600 to 675 L/m, The system also includes an auxiliary surface intake, which can be operated in winter through a hole in the ice, The pumps are operated from a pumphouse on the river bank. Water from these intakes is treated for residential use. In addition, 90,000 L are stored for fire fighting. Current annual usage is reported to be 77,015 m3, an average of approximately 211 m3/day. The raw water is treated by cartridge filtration and chlorination prior to trucked distribution.

The design process for a new intake is currently underway.

Sewage Lagoon and Solid Waste Facilities:

Currently, the Hamlet of Kugluktuk operates a single wastewater lagoon with effluent discharge to a naturally occurring wetland, which eventually discharges 3 km north into the Coronation Gulf. The wastewater from the Hamlet is collected by truck and deposited in the lagoon, which is approximately 5 km from the community. There have been no complaints regarding odors.
The new sewage lagoon will be sited adjacent to the existing lagoon. It will have a volume capacity of approx. 130,600m3. The lagoon design dimensions are 223m length, 223m width with a depth of 3.0m. Sloped berms and a 1.5m high fence surround the lagoon as per origioal design. This Lagoon is lined with liner.As built dimensions will be provided as soon as available The fence will have gates at the truck-loading area and the effluent discharge pipe.
Annual Decanting will commence just after break up(possibly mid- june) and will continue throughout the warm weather until freeze up(towards end of September or early October) to take best advantage of the treatment provided by the wetland to the ocean outfall.
The existing solid waste landfill site is post and wire fenced enclosing an area of 1.2 ha. It is located 4.5 km west of the Hamlet The un-bermed disposal area is 8,220 m2, with a maximum depth of 1.5m. Selected solid waste is burned regularly (daily). A separate bulky waste site occupies an area adjacent to the solid waste site .New Hazardous waste facility constructed within the perimeter of Solid Waste Management Facility to manage wastes in a central fenced and controlled location.The area lined with HDPE geomemberane and surrounded with a perimeter berm.
New Landfarm facility constructed to remidiate hydrocarbon contamination from soils.This facility consists of berm.The area lined with HDPE geomembrane and surrounded with perimeter berm.The upper surface of landfarm remain uncovered to facilitate air contact.

5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire **must** be submitted with the application for undertakings listed in **"bold"**)

- ☐ **Industrial**
- ☐ **Mining and Milling**(includes exploration/drilling)
- ☒ **Municipal** (includes camps/lodges)
- ☐ Power
- ☐ Agricultural
- ☐ **Conservation**
- ☐ Recreational
- ☐ **Miscellaneous** (describe below):

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

6. WATER USE

☒ To obtain water
☐ To cross a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control
☐ To divert a watercourse
☐ To alter the flow of , or store, water

☐ Other (describe):

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

Water use
☐ $100m^3$/day or less
☒ Greater than $100m^3$/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

Average quantity of 211 m3/day used as potable water source.

Water returned to source
_____ m^3/day

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

☒ Sewage
☒ Solid Waste
☒ Hazardous
☒ Bulky Items/Scrap Metal
☒ Waste oil
☐ Greywater
☒ Sludges
☐ Other describe):

9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit

DIAND	☐ Yes	☒ No	If no, date expected _____
Regional Inuit Association	☐ Yes	☒ No	If no, date expected _____
Commissioner	☐ Yes	☒ No	If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

No environmental impacts are anticipated. Measures are being taken to prevent entrainment of fish.

NIRB Screening ☐ Yes ☒ No If no, date expected _____

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?
No

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

This project will not substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands or the rights of the Inuit. This project will provide a potable water supply for the community of Kugluktuk, Nunavut.

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

A.D. Williams Engineering Inc., P.O. Box 1529, 4903-47th Street, Yellowknife, NT X1A 2P2
Nuna Burnside Engineering and Environmental Ltd., 15 Townline, Orangeville, Ontario L9W 3R4
NDL Construction Ltd. Box 53,Grp 612SS6,83Symington Lane,Winnipeg Manitoba,R2C 2Z3, Winnipeg,

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

Preliminary Engineering Report - Water Supply Improvements - A.D.Williams Engineering Inc.
CH2M HILL. 2007. Kugluktuk Water System Upgrades: Preliminary Review of Water Quality Data and Recommended Raw Water Monitoring Program.

Sewage Lagoon and Solid Waste Facilites Engineeing report- NunaBurnside Engineering and Environmental Ltd.

Note- Please see attached documents with this applications.

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun/English Summary of Project ☒ Yes ☐ No If no, date expected _____

Application fee of $30.00 (Payee Receiver General for Canada) ☒ Yes ☐ No If no, date expected _____

Water Use fee of $30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations;* Payee Receiver General for Canada)
☒ Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: December 1, 2008 Completion Date: December 1, 2013

Sudhir Kumar Jha	Project Officer	Sudhir	Nov 26, 2008
Name (Print)	**Title (Print)**	**Signature**	**Date**

For Nunavut Water Board office use only

APPLICATION FEE **Amount: $30.00** **Pay ID No.:** _____

WATER USE DEPOSIT **Amount: $30.00** **Pay ID No.:** _____